

# **A Study of the Alignment of the NWEA RIT Scale with the Illinois Assessment System**

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# **A Study of the Alignment of the NWEA RIT Scale with the Illinois Assessment System**

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Recently, NWEA completed a project to connect the scale of the tests used for Illinois mathematics and reading assessments with NWEA's RIT scale. Information from the Illinois assessments was used in a study to establish performance-level scores on the RIT scale that would indicate a good chance of success on these tests.

To perform the analysis, we linked aggregate state test results with NWEA test results for all schools whose NWEA test count for a grade and subject was between 95% and 105% of the count tested on the state assessment. This provided assurance that only schools that had tested a very similar population on both tests were included.

The Illinois state test is administered in spring. For the spring season, an equipercentile method was used to estimate the RIT score equivalent to each state performance level. For spring, we determined the percentage of the population within the selected study group that performed at each level on the state test and found the equivalent percentile ranges within the NWEA dataset to estimate the cut scores. For example, if 40% of the study group population in grade 3 mathematics performed below the proficient level on the state test, we would find the RIT score that would be equivalent to the 40<sup>th</sup> percentile for the study population (this would not be the same as the 40<sup>th</sup> percentile in the NWEA norms). This RIT score would be the estimated point on the NWEA RIT scale that would be equivalent to the minimum score for proficiency on the state test.

More complete documentation about this method can be found on our website.

Tables 1 through 4 show the best estimate of the RIT equivalent to each Illinois performance level for same-season (spring) and prior-season (fall) RIT scores. These tables may be used to identify students who may need additional help to perform well on these tests.

Tables 5 through 8 show the proportion of students achieving various RIT score ranges whom we estimate would achieve a proficient score on the state assessment. These tables can be used to assist in identifying students who are not likely to pass these assessments, thereby increasing the probability that intervention strategies will be planned and implemented.

**Table 1 - Recommended same-season (spring) RIT cut scores for Illinois performance levels  
- Reading**

Grade	Academic Warning	Below Standards		Meets Standards		Exceeds Standards	
	Cut score	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile
3	<170	170	5	194	35	211	84
4	N/A	N/A	N/A	198	27	216	79
5	N/A	N/A	N/A	206	32	222	81
6	N/A	N/A	N/A	207	25	226	79
7	N/A	N/A	N/A	213	32	234	88
8	N/A	N/A	N/A	212	22	238	90

**Table 2 - Recommended same-season (spring) RIT cut scores for Illinois performance levels  
- Mathematics**

Grade	Academic Warning	Below Standards		Meets Standards		Exceeds Standards	
	Cut score	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile
3	<177	177	3	192	20	209	74
4	N/A	N/A	N/A	197	15	222	81
5	N/A	N/A	N/A	206	20	235	88
6	N/A	N/A	N/A	210	20	240	85
7	N/A	N/A	N/A	213	19	241	76
8	<196	196	3	218	20	243	69

**Table 3 - Recommended prior-season (fall) RIT cut scores for Illinois performance levels - Reading**

Grade	Academic Warning	Below Standards		Meets Standards		Exceeds Standards	
	Cut score	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile
3	<162	162	5	186	35	205	85
4	N/A	N/A	N/A	192	27	211	81
5	N/A	N/A	N/A	201	32	218	82
6	N/A	N/A	N/A	203	25	222	79
7	N/A	N/A	N/A	210	32	230	88
8	N/A	N/A	N/A	209	22	235	91

**Table 4 - Recommended prior-season (fall) RIT cut scores for Illinois performance levels - Mathematics**

Grade	Academic Warning	Below Standards		Meets Standards		Exceeds Standards	
	Cut score	Cut score	Percentile	Cut score	Percentile	Cut score	Percentile
3	<168	168	3	182	20	200	74
4	N/A	N/A	N/A	190	15	213	82
5	N/A	N/A	N/A	201	21	227	89
6	N/A	N/A	N/A	206	21	232	85
7	N/A	N/A	N/A	210	20	235	76
8	<194	194	3	215	20	238	70

**Table 5 - Proportion of students passing the Illinois state reading assessment based on same-season (spring) reading RIT range**

RIT Range	Percent in this range who pass					
	3	4	5	6	7	8
165	6%	4%	2%	2%	1%	1%
170	10%	7%	3%	3%	2%	2%
175	16%	11%	5%	5%	3%	3%
180	23%	17%	8%	8%	4%	5%
185	33%	25%	13%	12%	7%	8%
190	45%	36%	20%	18%	11%	12%
195	57%	48%	29%	27%	17%	18%
200	69%	60%	40%	38%	25%	27%
205	78%	71%	52%	50%	36%	38%
210	86%	80%	64%	62%	48%	50%
215	91%	87%	75%	73%	60%	62%
220	94%	92%	83%	82%	71%	73%
225	96%	95%	89%	88%	80%	82%
230	98%	97%	93%	92%	87%	88%
235	99%	98%	96%	95%	92%	92%
240	99%	99%	97%	97%	95%	95%

**Table 6 - Proportion of students passing the Illinois state mathematics assessment based on same-season (spring) mathematics RIT range**

RIT Range	Percent in this range who pass					
	3	4	5	6	7	8
160	5%	3%	1%	1%	1%	0%
165	8%	5%	2%	1%	1%	1%
170	12%	8%	3%	2%	2%	1%
175	18%	12%	5%	4%	3%	2%
180	27%	18%	8%	6%	4%	3%
185	38%	27%	13%	9%	7%	4%
190	50%	38%	20%	14%	11%	7%
195	62%	50%	29%	22%	17%	11%
200	73%	62%	40%	31%	25%	17%
205	82%	73%	52%	43%	36%	25%
210	88%	82%	64%	55%	48%	36%
215	92%	88%	75%	67%	60%	48%
220	95%	92%	83%	77%	71%	60%
225	97%	95%	89%	84%	80%	71%
230	98%	97%	93%	90%	87%	80%
235	99%	98%	96%	94%	92%	87%
240	99%	99%	97%	96%	95%	92%
245	100%	99%	98%	98%	97%	95%

**Table 7 - Proportion of students passing the Illinois state reading assessment based on prior-season (fall) reading RIT range**

<b>RIT Range</b>	<b>Percent in this range who pass</b>					
	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
<b>155</b>	5%	3%	1%	1%	1%	1%
<b>160</b>	8%	5%	2%	2%	1%	1%
<b>165</b>	13%	8%	3%	3%	1%	1%
<b>170</b>	20%	12%	5%	4%	2%	2%
<b>175</b>	29%	18%	8%	7%	4%	4%
<b>180</b>	40%	27%	13%	11%	6%	6%
<b>185</b>	52%	38%	20%	17%	9%	10%
<b>190</b>	64%	50%	29%	25%	14%	16%
<b>195</b>	75%	62%	40%	36%	22%	23%
<b>200</b>	83%	73%	52%	48%	31%	33%
<b>205</b>	89%	82%	64%	60%	43%	45%
<b>210</b>	93%	88%	75%	71%	55%	57%
<b>215</b>	96%	92%	83%	80%	67%	69%
<b>220</b>	97%	95%	89%	87%	77%	78%
<b>225</b>	98%	97%	93%	92%	84%	86%
<b>230</b>	99%	98%	96%	95%	90%	91%
<b>235</b>	99%	99%	97%	97%	94%	94%
<b>240</b>	100%	99%	98%	98%	96%	96%

**Table 8 - Proportion of students passing the Illinois state mathematics assessment based on prior-season (fall) mathematics RIT range**

<b>RIT Range</b>	<b>Percent in this range who pass</b>					
	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
<b>150</b>	5%	2%	1%	0%	0%	0%
<b>155</b>	8%	4%	1%	1%	1%	0%
<b>160</b>	12%	6%	2%	1%	1%	1%
<b>165</b>	18%	9%	3%	2%	1%	1%
<b>170</b>	27%	14%	5%	3%	2%	1%
<b>175</b>	38%	22%	8%	5%	4%	2%
<b>180</b>	50%	31%	13%	8%	6%	4%
<b>185</b>	62%	43%	20%	13%	9%	6%
<b>190</b>	73%	55%	29%	20%	14%	9%
<b>195</b>	82%	67%	40%	29%	22%	14%
<b>200</b>	88%	77%	52%	40%	31%	22%
<b>205</b>	92%	84%	64%	52%	43%	31%
<b>210</b>	95%	90%	75%	64%	55%	43%
<b>215</b>	97%	94%	83%	75%	67%	55%
<b>220</b>	98%	96%	89%	83%	77%	67%
<b>225</b>	99%	98%	93%	89%	84%	77%
<b>230</b>	99%	99%	96%	93%	90%	84%
<b>235</b>	100%	99%	97%	96%	94%	90%
<b>240</b>	100%	99%	98%	97%	96%	94%
<b>245</b>	100%	100%	99%	98%	98%	96%